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Thought to be extinct for nearly 113 years until its rediscovery in 1997 at Toranmal Wildlife Sanctuary, Maharashtra, by a team of American scientists (King & Rasmussen 1998; Rasmussen & Collar 1998), the Forest Owlet *Heteroglaux blewitti* is one of the rarest and least-known of India's endemic bird species (Birdlife International 2015). The Forest Owlet was first collected in 1872 by F.R. Blewitt from Madhya Pradesh (present day Chhattisgarh) and was subsequently described as *Heteroglaux blewitti* by Hume (1873) (Rasmussen & Collar 1998, 1999). Later it was classified as *Athene blewitti* by Baker (1934), Ripley (1961), Ali & Ripley (1969) and Grimmett et al. (1999). Eventually, Rasmussen & Anderton (2005) classified it as *Heteroglaux blewitti*. Today, the Forest Owlet is protected as a Schedule-I species under the Indian Wildlife (Protection) Act 1972, and is listed as Critically Endangered in the IUCN Red Data list (Birdlife International 2015).

This bird was known only from seven specimens collected in India in the 19<sup>th</sup> century. After the rediscovery, surveys were undertaken by BNHS to establish its distribution and status (Ishtiaq 1998; Ishtiaq & Rahmani 2000; Jathar & Rahmani 2004). This endemic species is reported to mainly inhabit the dry deciduous forests of central India, especially the Satpura mountain ranges (Mehta et al. 2007; Jathar & Patil 2011;

## NEW DISTRIBUTION RECORD OF THE FOREST OWLET *HETEROGLAUX BLEWITTI* HUME, 1873, (AVES: STRIGIFORMES: STRIGIDAE) IN PURNA WILDLIFE SANCTUARY, GUJARAT, INDIA

Jenis R. Patel<sup>1</sup>, Shashank B. Patel<sup>2</sup>, Saurabh C. Rathor<sup>3</sup>, Jaymal A. Patel<sup>4</sup>, Pratik B. Patel<sup>5</sup> & Anirudh G. Vasava<sup>6</sup>

<sup>1,6</sup>Voluntary Nature Conservancy, Vallabh Vidyanagar, Anand, Gujarat 388120, India

<sup>2,3</sup>B.J. Medical College, Asarwa, Haripura, Ahmedabad, Gujarat 380016, India

<sup>4,5</sup>Somnath Society, Devsar, Bilimora, Navsari, Gujarat 396321, India

<sup>1</sup>jenisbpatel@gmail.com (corresponding author),

<sup>2</sup>shashankpatel7078@yahoo.com, <sup>3</sup>drscrathod@gmail.com,

<sup>4</sup>jamesmartly@gmail.com, <sup>5</sup>prateek4419@gmail.com,

<sup>6</sup>aniruddh.vasava@gmail.com

Rahmani 2012). The Forest Owlet has a small, severely fragmented population (Birdlife International 2015), known from fewer than 12–14 recent locations from central India (Madhya Pradesh, Maharashtra), with the majority of the individuals being reported from Melghat Tiger Reserve, Maharashtra (Kasambe et al. 2004; Mehta et al. 2007; Yosef et al. 2010; Jathar & Rahmani 2011; Pande et al. 2011).

Further, there was a sighting of a Forest Owlet in Tansa Wildlife Sanctuary, Palghar District, Maharashtra (Laad & Dagale 2014). A long-time endemic species of the Satpuda ranges, this bird was recorded in the northern



*Heteroglaux blewitti*  
Forest Owlet

NOT EVALUATED	DATA DEFICIENT	LEAST CONCERN	NEAR THREATENED	VULNERABLE	ENDANGERED	CRITICALLY ENDANGERED	EXTINCT IN THE WILD	EXTINCT
NE	DD	LC	NT	VU	EN	CR	EW	EX
						CRITICALLY ENDANGERED		



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Western Ghats. Currently the population is estimated at 50–249 mature individuals, with a total estimate of approximately 75–400 individuals (Birdlife International 2015). The species is considered to be declining as a result of habitat loss of the deciduous forests (Birdlife International 2015). Despite some extensive bird surveys in recent times (Singh 2000; Trivedi 2003, 2004; Trivedi & Soni 2006; Mehta et al. 2007) in several possible Forest Owlet habitats of Gujarat, there were no confirmed records of Forest Owlets from Gujarat. Here we present the first confirmed record of Forest Owlets from Purna Wildlife Sanctuary (20°51'N–73°32'E & 21°31'N–73°48'E), Dang District, Gujarat.

On 14 November 2014, while travelling on a motorbike at 17:20 hours in the northern region of the Purna Wildlife Sanctuary, an owlet flew in front of us, crossed the road and sat on a branch on top of a Teak Tree *Tectona grandis*. We carefully observed its behavior and plumage, which was different than the Jungle Owlet *Glaucidium radiatum* and Spotted Owlet *Athene brama*. JP has experience with the species in Khandava (Madhya Pradesh) and was able to identify the bird as a Forest Owlet. While photographing the individual another Forest Owlet came and sat on another teak tree near the first owlet. This individual was also photographed. We were able to identify the species based on morphological characters such as the faintly spotted crown, nape and back, unmarked white lower breast, a broad and complete dark frontal collar, banded wings with white trailing edge, a solid brown breast and strongly contrasting tail banding with a white terminal band (Rasmussen & Collar 1998; Rasmussen & Ishtiaq 1999). The second individual then flew and sat near the first individual. We observed the two individuals for almost an hour, after which they flew away. From

their behaviour, i.e., remaining close to each other and non aggression towards each other, we infer that the two were a pair. However, owing to the distance and the unclear pictures we were unable to identify their sexes. Afterwards we compared our field observation and photographs with the available field guides, which confirmed that the birds were Forest Owlets (Grimmett et al. 1999). The area of sighting is a disturbed area dominated by paddy fields, human settlements, and surrounded by fragmented dry deciduous forest patches with a few other trees of Teak, Mahua *Madhuca indica*, Haldu *Haldina cordifolia* and Khair *Acacia catechu* (Image 1). Although we correctly identified the bird and were able to take photographs (Image 2), the pictures were not good enough to convince other ornithologists. In order to further confirm the occurrence of the species in the region, and to acquire good photographic evidence, we again visited the area a week later and used the playback call to bring in the bird. We used the contact call in the evening between 15:00–16:00 hours. We played the call at three locations separated by a distance of 500–700 m, twice at the first two stations and once at the third station. We played the call for two minutes at each station and then waited nearly three minutes for the response. We did not get any response at the first call station. At the second call station we heard a contact call in response, but could not locate the bird. So we played the call again for two minutes at the same location and waited for a response, with no further response. We moved to the third call station nearly 700m away from the second station and played the call. After two minutes of silence we heard a contact call from a neighboring tree and one individual flew towards



Image 1. Forest Owlet *Heteroglaux blewitti* habitat in Purna Wildlife Sanctuary, Gujarat.



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Image 2. Forest Owlet in *Heteroglaux blewitti* in Purna Wildlife Sanctuary, Gujarat.

us, and sat on the top of a teak tree nearly 90m from where we stood. It kept giving calls for the next 2–3 minutes and then suddenly another individual came and sat adjacent to the first.

Occurrence of Forest Owlet in Gujarat has always been dubious in the past (Singh 2000; Trivedi 2004; Mehta et al. 2007). In 1914 a specimen was purportedly obtained by R. Meinertzhagen at Mandvi, on the Tapti River in southern Gujarat (Ali 1948; Ripley 1961; Ali & Ripley 1969; Ali & Ripley 1981; Ripley 1976). Based on this locality report, the entire length of the Satpura hill range was considered as Forest Owlet range (Ali 1948; Ripley 1961; Ali & Ripley 1981; Clark & Mikkola 1989), including the Surat, Dangs and Rajpipla hills (Khacher 1996). Later, Rasmussen & Collar (1998) established that the locality specimen reportedly obtained at Mandavi was in fact a fifth specimen collected by James Davidson from Khandesh in 1884 that Meinertzhagen stole and relabeled with false data (Rasmussen & Collar 1998, 1999). The specimen supposedly from Mandvi is the only basis for statements that the Forest Owlet occurs in the Surat Dangs. Based on this wrong information, Bombay Natural History Society (BNHS) searched the Mandvi area, on the Tapti River in southern Gujarat for Forest Owlets, but none were recorded (Ripley 1976; Rasmussen & Collar 1998; Ishtiaq & Rahmani 2000). Later

Mehta et al. (2007) carried out an exploratory survey in what they considered as optimal forested areas in six districts - Vadodara, Panchmahal, Dahod, Narmada, and Navsari of Gujarat, which have contiguous tracts of teak dominated by dry deciduous forest, but could not locate any individuals. Based on this survey they concluded that It is possible that the Forest Owlet, even if it occurred in a forest in the past, may have disappeared due to the loss of old growth forests (Mehta et al. 2007). Neither of the earlier bird surveys (Singh 2000; Trivedi 2003; Trivedi & Soni 2006; Mehta et al. 2007), recorded the species. Therefore, the present record is the first authentic record of the species from the forests of Gujarat. Also, our observation fits nicely into the gap between the Satpura range and the Western Ghats suggesting a previously unknown population continuity of the species (Fig. 1).

This species is considered as endemic to Satpura Hills in central India and found in elevations between 400–600 msl (Ishtiaq & Rahmani 2000; Jathar & Rahmani 2004; Mehta et al. 2007; Jathar & Rahmani 2011; Jathar & Patil 2011; Rahmani 2012), but this sighting record is the first record from the northernmost part of the Western Ghats zone at an elevation of 362m and thus is very significant (Fig. 1). Our observations also provide encouraging prospects that the geographic range of

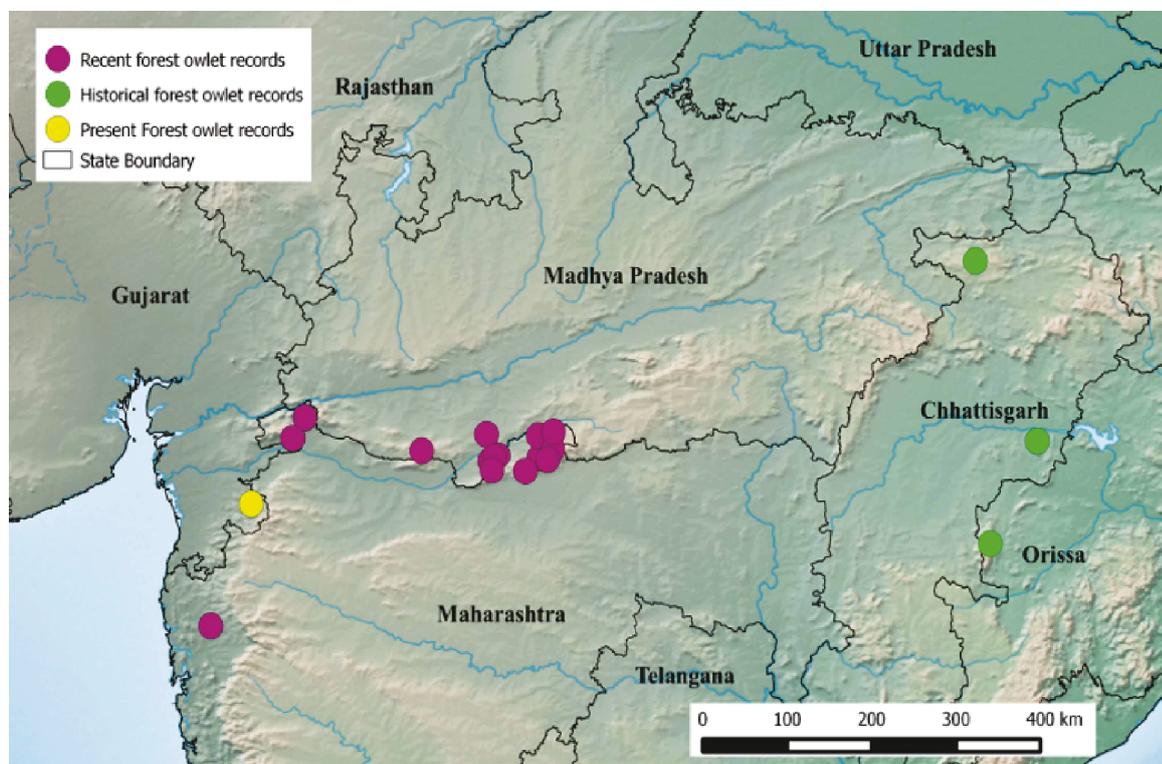


Figure 1. Present and past distributional records of Forest Owlet *Heteroglaux blewitti* in India.

this obscure and rare species is probably larger than documented.

It is suggested that the Forest Owlets are threatened primarily by the loss and degradation of its habitat by encroachments of forests for agricultural purpose (Mehta et al 2007; Jathar & Patil 2011). Rasmussen & Ishtiaq (1999) suggested that livestock and fuel wood-gatherers appear to cause sufficient disturbance to the birds. However, contrary to Rasmussen & Ishtiaq (1999), some authors (Yosef et al. 2010) found that Forest Owlets establish territories in areas disturbed by anthropogenic activity.

Other potential threats include forest fires, capture by tribals for rituals, hunting and use of rodenticides (Jathar & Rahmani 2004; Mehta et al. 2007; Jathar & Patil 2011). Like most forested regions in southern Gujarat, the region in and around Purna Wildlife Sanctuary is facing intensive exploitation for teak, including illicit logging, leaving mostly the young teak plantations. Aforementioned activities have not only degraded their habitat but also put the nesting trees at risk since the Forest Owlet nests and roosts in small cavities in large and mature trees (Jathar & Rahmani 2012). As Mehta et al. (2007) point out, these teak forests are viewed as sources of timber but not for their conservation value. Therefore, no strict measures are enforced to protect the teak forests. Although large and mature trees are still available to a certain extent, if the Forest Owlet is to survive in this area, strict measures must be implemented. The tribes in this region, (Bhil, Konkana, Varli, Kotwalia, Kathodi and Gamit) are not only fond of wild meat, but also trap and sell owls and parakeets, for use in ritual ceremonies as well as for the pet trade (Centre for Environment Education 2011). Hunting birds and small mammals with catapults is still a popular and widely practiced sport among the tribal children (Jenis R. Patel pers. obs. 2013, 2014). The Forest Owlet is very likely to be affected by such practices. The site of these observations is a tourists place, and attracts visitors from all over Gujarat, especially on weekends. One of the trees on which the Forest Owlet was recorded is by the side of the road. We are unaware of the human-disturbance tolerance of this species, but it is very likely that the resulting disturbance might disturb the Forest Owlet forcing the species to desert the region.

From the aforementioned it is clear that this endemic and endangered species requires immediate attention. Although, Ishtiaq & Rahmani (2005) suggested management of their habitat through community involvement, awareness and joint forest and community schemes, looking at the fragile status of the species,

needs to be implemented cautiously. Furthermore, our observations call for further systematic and intensive surveys in this part of the state, along with appropriate public outreach, management and protection intervention. Absence of any urgent attention to this region of the state can have serious implications for the conservation of the Forest Owlet in Gujarat. We also suggest that various teak dominated forest regions of Gujarat from Shoolpaneshwar Wildlife Sanctuary in the north to the forests of Kaparadataluka of Valsad in the south, especially Vyara and Songadhtaluka of Tapi District and Umarpadataluka of Surat District, which have connectivity with the forests in Dang, should be thoroughly surveyed to establish the occurrence of the highly threatened Forest Owlet.

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